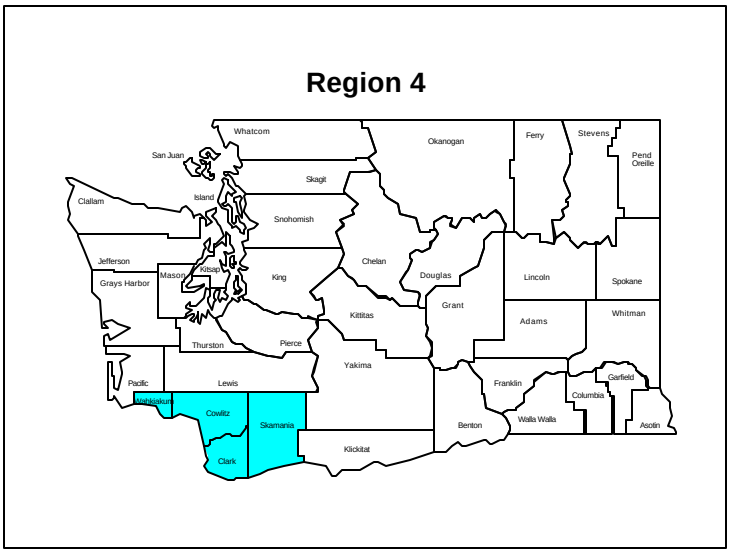
Region 4

Region 4 includes the counties of Clark, Cowlitz, Skamania and Wahkiakum in the southwest corner of the state.

Terrain runs from low, rolling hills in the west to the Cascade Mountains in the east. Much of the population resides in the lowlands along the Columbia River.

The region was one of the fastest growing in the state during the 1990s, thanks to the booming economy and substantial growth of Clark County, most of it driven by high-tech industries. It has about 7.5 percent of the state's population.



Region 4's population is less diverse than the state as a whole. Wahkiakum County has nearly one in five residents that are age 65 or older.

Like many regions of the state, Region 4's economy in recent years has been in transition, diversifying away from an economy based on natural resources. While timber remains the largest industry In both Cowlitz and Wahkiakum Counties, there has been some diversification within manufacturing and significant growth in the trade and services sectors. Through the late 1990s, manufacturing diversification in Cowlitz County kept pace with job losses in the timber industry; however, the recession of 2001-02 brought a temporary halt to new investment and to the shutdown of the Longview aluminum smelter and its high-wage jobs. In Skamania County, creation of the Columbia Gorge National Scenic Area in the mid 1980s augmented the county's growing tourism industry; the Skamania Lodge, a conference center and destination resort, has become the largest private employer in the county. And, while Clark County's high-tech manufacturing base began cooling off in the late 1990s, the county should continue to be the home for more high-tech expansion in the future.

The region has a significant percentage that commutes to jobs outside their county of residence. About one-third of Clark County's workers, and about one-quarter of Skamania County's, crosses the Columbia River to jobs in Oregon.

The Counties

Clark County[1]

At 628 square miles, Clark County is one of the smallest in the state, 35th in size among Washington's 39 counties.

Its population of 345,238 made it the fifth largest in the state in 2000. For most of the 1990s, Clark County was the fastest growing county in the state, and among the top 50 fastest growing in the nation. Its population grew nearly 60 percent in the decade, compared to 21 percent for the state as a whole. Four out of every five new residents in the 1990s moved into the county.

Clark County is the third most densely populated county in the state; at 549 people per square mile, it is behind only King and Kitsap Counties.

Just over half of its residents live in cities. Vancouver is the largest city, fourth largest in the state, with a population of 137,500; it more than tripled in size during the 1990s, primarily due to annexations. La Center showed the most growth, 242 percent.

Clark County is part of a geologic depression stretching from the Willamette Valley to Puget Sound. To the south and west, the Columbia River separates Clark County from the state of Oregon. To its north is the Lewis River, which separates it from Cowlitz County. And to its east is the Cascade Range and Skamania County.

The county rises from low elevations along the Columbia through the terraces and bench lands formed by previous forks of the river to foothills 3,000 feet above sea level in the northeastern reach of the county. The East Fork of the Lewis River flows through the middle of the county, while the Washougal River and Lacamas Creek flow through the southeast before emptying into the Columbia.

The southern third of the county is heavily urbanized, the western and central parts of the county feature rural and agricultural land, and in the north and east is forest. Much of the better farmland, along the floodplain of the Columbia, is being converted to urban use.

Manufacturing was one of the keys to Clark County's economic boom in the early and mid 1990s; the county benefited greatly from Portland's fast-growing Silicon Forest of high-tech industries. While high-tech is not the only story in Clark County, it will continue to be the home for high-tech expansion in the future. Pulp and paper, and primary metals – more traditional industries – continue to be major employers even after a decade of restructuring. Residential and commercial construction has been strong for several years. And, retail trade and services jobs greatly expanded during the 1990s despite Portland's sales tax advantage.

Cowlitz County[2]

Cowlitz County has an area of 1,139 square miles. It is the 28th largest of the 39 counties in Washington.

The county's population in 2000 was 92,948, making it the 12th most populous county. It grew about two-thirds as fast as the rest of the state during the 1990s. Cowlitz County is the 10th most densely populated county, with 82 residents per square mile.

Nearly three of every five residents live in incorporated areas. Longview, with a population 35,100, is the largest city and is home to one third of the county population. Castle Rock, Kalama, Kelso, and Woodland, are the other cities in the county. The Cowlitz Indian Tribe has a small reservation near the Longview-Kelso area.

Like Clark, Cowlitz County is part of the Puget Sound-Willamette Depression. Despite nestling up against the Cascade Mountains, much of the hilly areas of the county reach elevations about 1,000 feet. Those parts of Cowlitz County that abut the Cascades rise to around 4,000 feet; the highest point is Elk Mountain, at 4,538 feet.

A number of rivers that originate in the Cascades flow through Cowlitz County; they include the Cowlitz, Toutle, Coweeman, Kalama, and Lewis Rivers. The Yale Dam and Ariel Dam have created Yale Lake and Merwin Lake, respectively, on the Lewis River.

With about 85 percent of Cowlitz County in forest, logging and lumber industries have been the foundation of the local economy since the pioneer days. After weathering national economic recessions and efficiency measures during the first half of the 1980s, employment in these industries fell. Today, forest-related industries continue to lead all others as the county's major source of employment. There has been some diversification of industry within manufacturing, however, as well as significant growth in the trade and services sectors.

Skamania County[3]

Skamania County has an area of 1,672 square miles. It is the 24th largest of the 39 Washington counties.

Its population in 2000 was 9,872; it grew about 19 percent during the 1990s, just under the state average. Only about six persons live per square mile, making Skamania one of the least populous counties in the state. Eighty-two percent of its residents live in unincorporated areas. Stevenson and North Bonneville are the county's two cities. In recent years, the county has experienced an increase in the percentage of residents that are retirement age.

Mountainous, rugged and heavily forested terrain dominates Skamania County; the Cascade Mountains bisect it from north to south. About 80 percent of the county is within the Gifford Pinchot National Forest. The county's central feature is 8,365-foot Mount St. Helens, the most active volcano in the continental United States. Off the Pacific Crest Trail, which runs north south through the center of the county, are some of the region's highest elevations. These include Sunrise Peak, 5,880 feet; Council Bluff, 5,163 feet; Steamboat Mountain, 5,425 feet; and Lookout Mountain, 5,692 feet.

Skamania County is the southernmost county in the state. Lewis County borders it to the north, Cowlitz and Clark Counties to the west, Yakima and Klickitat Counties to the east, the Columbia River and Oregon to the south. The Columbia is one of the country's most scenic rivers as it flows through this area.

The Washougal and Wind Rivers flow south through the county to the Columbia River while the Lewis River flows through mid-county to the Swift Creek dam and reservoir before continuing west through Cowlitz and Clark Counties to the Columbia.

Skamania County's economy is based on government, especially management of national forests and of fish and wildlife. The balance of its economy is logging and lumber, tourism and recreation, and light manufacturing. Services employment increased considerably in the mid 1990s when the Skamania Lodge, a destination resort, opened.

Wahkiakum County[4]

Wahkiakum County has an area of 264 square miles, making it one of the smallest counties in the state, 37th in size among Washington's 39 counties.

Its population also is one of the smallest; at 3,824 people, the county was ranked 38th. Cathlamet, with one of every six county residents, is the only incorporated city. From 1970 to 2000, Wahkiakum County's population only increased 6 percent, compared to the state's 75 percent. It also has a sizable population of retirees; about one in five is age 65 or older. Just over 14 persons live every square mile, making the county the 30th most densely populated in the state.

The terrain of Wahkiakum County is similar to that of Cowlitz County. Much of the county is hilly and reaches elevations up to 1,000 feet. Its major rivers are the Grays and Elochoman Rivers, both of which flow into the Columbia River.

On the west and north, Wahkiakum County is bounded by Pacific County, on the south by the Columbia River, and on the east by Cowlitz County. Lewis County also bounds the northeast corner of the county.

About 85 percent of Wahkiakum County is forest. Logging and lumber industries have been the foundation of its economy for more than a century. Although forest-related industries shrank during the last 20 years, they continue to provide the county's major source of employment.

Population and Demographics

Region 4's population grew much faster than the population of the state during the 1990s. As shown on Table 1 below, the region grew by more than 36 percent, 15 percentage points greater than the state as a whole; this growth was driven by Clark County. The region's high rate of growth is expected to continue and out-pace that of the state through the year 2025.

Table 1. Population Growth

	1990 Population	2000 Population	% Change	2025 (Projected)	% Change from 2000
Clark	238,053	345,238	45.0%	544,809	57.8%
Cowlitz	82,119	92,948	13.2%	136,114	46.4%
Skamania	8,289	9,872	19.1%	12,927	30.9%
Wahkiakum	3,327	3,824	14.9%	5,072	32.6%
Total	**331,788**	**451,882**	**36.2%**	**698,922**	**54.7%**
Washington State	*4,866,663*	*5,894,121*	*21.1%*	*7,975,471*	*35.3%*

Source: U.S. Census Bureau, Census 2000; *2002 Population Trends*, State of Washington Office of Financial Management, Forecasting Division; *Washington State County Population Projections For Growth Management*, Intermediate Projection, State of Washington Office of Financial Management, Forecasting Division, January 2002.

About three-quarters of the region's population lives in densely settled urbanized areas; see Table 2, below. Most live in the Vancouver area of Clark County and the Longview-Kelso area of Cowlitz County. On the other hand, Skamania and Wahkiakum Counties are rural. The current growth pattern, both urban and rural, affects how agencies prepare for emergencies as changes in the population and development can increase risks associated with hazards.

The ability to prepare for and recover from a disaster varies among population groups. Research on various population groups and disasters found that it took some populations longer to recover from a disaster for a variety of reasons. These population groups include minorities, people with language barriers, the disabled, the elderly, and those with low income.

Table 2. Urban/Rural Populations, 2000

	Urban	Rural
Clark	284,756	60,482
Cowlitz	62,620	30,328
Skamania	0	9,872
Wahkiakum	0	3,824
Total	**347,376**	**104,506**
Percentage	77%	23%
Washington State	*82%*	*18%*

Source: U.S. Census Bureau, Census 2000: Population and Housing by Urban Classification.

Ethnic Groups

People from non-white population groups generally experience longer recoveries due to lower incomes, savings and insurance; their difficulty accessing insurance; and their using aid and relief organizations differently than was anticipated. Language and cultural differences can pose difficulties in some populations understanding and implementing preparedness and mitigation actions as well as accessing and using available disaster relief.

Table 3, below, shows Region 4, overall, is less diverse than the state as a whole. However, during the 1990s, the populations of minorities grew at a much faster rate than the white population.

Table 3. Population by Ethnic Group

	Hispanic/ Latino	Asian	African American	Native American	Total
Clark	4.7%	3.2%	1.7%	0.8%	10.4%
Cowlitz	4.6%	1.3%	0.5%	1.5%	7.9%
Skamania	4.0%	0.5%	0.3%	2.2%	7.0%
Wahkiakum	2.6%	0.5%	0.3%	1.6%	5.0%
Washington State	*7.5%*	*5.5%*	*3.2%*	*1.6%*	*17.8%*

Source: U.S. Census Bureau, Census 2000.

Even though Region 4 is not as diverse as the state, a sizable faction of its population does not speak English as its primary language at home and speaks English less than very well, as shown in Table 4, below. This means that a significant segment of the

population may have a language barrier that prevents them from preparing for a disaster, responding to an event, or applying for assistance after a disaster.

Table 4. Primary Language Spoken at Home

	Language Other Than English	***English Less Than Very Well***	**Spanish**	***English Less Than Very Well***	**Other Indo-European**	***English Less Than Very Well***	**Asian-Pacific Islander**	***English Less Than Very Well***
Clark	**11.5%**	**5.5%**	3.6%	1.6%	4.8%	2.5%	2.7%	1.3%
Cowlitz	**6.0%**	**2.8%**	3.5%	1.7%	1.1%	0.3%	1.2%	0.7%
Skamania	**4.9%**	**1.1%**	3.2%	0.9%	0.9%	0.1%	0.5%	0.1%
Wahkiakum	**4.3%**	**0.7%**	2.8%	0.4%	1.1%	-	-	-
Washington State	***14.0%***	***6.4%***	*5.8%*	*2.8%*	*3.2%*	*1.3%*	*4.4%*	*2.2%*

Source: U.S. Census Bureau, Profile of Selected Social Characteristics: 2000

Disabled People

People with disabilities often are left out of community preparedness activities for a disaster. They have complex challenges because of hearing, sight, mobility, or mental impairments. Additionally, a significant percentage of working-age people with disabilities do not work. These factors make it difficult for the disabled to prepare in advance of a disaster.

Table 5, below, shows that about one in six working-age Region 4 residents age has a disability that does not require them to be institutionalized, but just over half are employed. More than 40 percent of retirement-age people have a disability.

Table 5. Non-Institutionalized Disabled Population

	21 to 64 Years		**65 Years and Older**
	% of Population	**% Employed**	**% of Population**
Clark	17.8%	60.3%	44.2%
Cowlitz	22.0%	52.1%	46.4%
Skamania	17.3%	49.7%	40.5%
Wahkiakum	23.0%	47.8%	40.8%
Washington State	*17.7%*	*57.6%*	*42.3%*

Source: U.S. Census Bureau, Profile of Selected Social Characteristics: 2000.

Senior Citizens

Senior citizens may be overlooked in preparedness and recovery activities; their age could lead them to have trouble after a disaster, perhaps not qualify for loans, or become disabled because of the disaster. Table 6, below, shows about one of every five people living in Wahkiakum County is over 65. The other counties in the region have retiree-age populations at about the same percentage as the state as a whole, although this population has been growing in recent years in Skamania County.

Table 6. Population Over Age 65

	% of Total Population
Clark	9.5%
Cowlitz	13.3%
Skamania	11.0%
Wahkiakum	18.5%
Washington State	*11.2%*

Source: U.S. Census Bureau, Census 2000.

Poverty

The amount of money people have influences what type of housing they live in, whether they can engage in mitigation actions, and how long it takes to recover. Income is based on a number of factors, including the individual, the economy, availability of jobs, educational opportunity, among others. Expenses can vary by location – rural places are cheaper to live but have fewer jobs, while urban areas can be costly, even for renters.

Table 7, below, shows that Cowlitz and Skamania Counties have a larger percentage of people living in poverty than the state as a whole. These counties have been classified as distressed for the past several years because their rate of unemployment has been at least 20 percent higher than the state average for three consecutive years (most recently, the 2000-2002 period); this is common for resource-based economies. Both counties have lost a significant number of high-paying manufacturing jobs, particularly in forest products industries, in recent years.

Table 7. Poverty Rates

	% of Total Population	Children Under 18	Over Age 65
Clark	9.1%	11.7%	6.8%
Cowlitz	14.0%	19.5%	6.6%
Skamania	13.1%	18.1%	7.9%
Wahkiakum	8.1%	11%	2.7%
Washington State	*10.6%*	*13.2%*	*7.5%*

Source: U.S. Census Bureau, Profile of Selected Economic Characteristics: 2000

School Children

While children overall are captured in figures elsewhere in this profile, the number of children attending school is a concern because many of the school buildings they spend considerable time in each day are older and potentially more vulnerable to the effects of disaster. Table 8, below, shows the population of school-age children in Region 4; it does not show the number that are in potentially vulnerable buildings.

Table 8. School Enrollment – Kindergarten through High School

	Total	Kindergarten	Elementary	High School
Clark	70,778	5,407	44,869	20,502
Cowlitz	18,394	1,438	11,376	5,580
Skamania	1,955	92	1,217	646
Wahkiakum	690	36	393	261
Total	**91,817**	**6,973**	**57,855**	**26,989**
Washington State	*1,127,448*	*82,637*	*697,192*	*347,619*

Source: U.S. Census Bureau, Profile of Selected Social Characteristics: 2000.

Housing

Washington's Growth Management Act encourages local jurisdictions to direct population growth into urban growth areas, where growth and higher densities are expected and supported by urban services. It also requires communities to incorporate mitigation by protecting critical areas and restricting development in areas such as those that are frequently flooded or subject to geologic hazards. Eliminating or limiting development in hazard-prone areas can reduce vulnerability to hazards and the potential loss of life and injuries and property damage.

Table 9, below, provides a breakdown by county of various housing characteristics.

Table 9. Housing Development

	Single-Family	Multi-Family	Mobile Homes	Other
Clark	70.6%	22.6%	6.6%	0.2%
Cowlitz	68.5%	18.8%	12.3%	0.4%
Skamania	68.1%	5.9%	24.5%	1.5%
Wahkiakum	69.8%	4.7%	23.8%	1.7%
Washington State	*65.4%*	*25.6%*	*8.5%*	*0.5%*

Source: U.S. Census Bureau, Profile of Selected Economic Characteristics: 2000.

The year housing was built is important for mitigation. The older a home is, the greater the risk of damage from natural disasters. Homes built after 1980 are more likely built to current standards for hazards such as floods, high winds, snow loads, and earthquake. Table 10, below, shows the periods during which housing was built throughout the region.

In Region 4, the fast growing Clark County has the newest housing stock, with about half its housing built since 1980. Cowlitz and Wahkiakum Counties, which grew faster in earlier years, have a greater percentage of housing built before 1960.

Table 10. Housing – Year Built

	Pre-1939 – 1959	1960 – 1979	1980 – 2000
Clark	17.1%	33.0%	49.9%
Cowlitz	38.5%	35.5%	26.0%
Skamania	26.1%	36.5%	37.4%
Wahkiakum	42.2%	30.9%	26.8%
Washington State	*29.4%*	*32.7%*	*37.9%*

Source: U.S. Census Bureau, Profile of Housing Characteristics 2000

Household Income

Median household income is an indicator of a region's economic stability. It generally shows income distribution among the population. Median household income indicates that point where half of all households have a higher income, and half have a lower income.

Table 11, below, shows median household incomes in three of the four counties in Region 4 are below the state average. Only in Clark County, with its high-paying high-tech industries, was median household income higher than the state average. Cowlitz, Skamania, and Wahkiakum Counties all have lost a significant percentage of high-

paying jobs in the forest products industries in recent years; these jobs were replaced primarily with lower paying jobs in the service and trade sectors.

Table 11. Median Household Income

County	Year 1999
Clark	$48,376
Cowlitz	$39,797
Skamania	$39,317
Wahkiakum	$39,444
Washington State	*$44,776*

Source: U.S. Census Bureau, Profile of Selected Economic Characteristics: 2000

Employment and Industry

The economy of Region 4 has experienced tremendous change in recent years, moving from one based in manufacturing – primarily forest products and industries such as metal refining – to one based in trade and services. Manufacturing, however, continues to be important in the region, with high-tech industries leading the booming growth in Clark County throughout the 1990s, and natural resource industries providing the economic backbone to Cowlitz, Skamania, and Wahkiakum Counties.

Below are brief descriptions of the economy and employment in the region's five counties.

Clark County

Two forces drove Clark County's economic expansion during the 1990s: new high-technology investment and people moving into the county. The industry sectors behind the boost in employment were construction, retail trade, and services. The county's employment base changed from manufacturing and government, with almost 60 percent of all jobs in 1970, to one dominated by retail trade and services, with almost half of all jobs in 1999.

The manufacturing sector was one of the keys to Clark County's economic growth in the 1990s, as Portland's high-tech boom spilled into the county. Manufacturing accounts for 16 percent of the county's jobs, slightly higher than the statewide average of 13 percent. The county has a diversified manufacturing sector with strong representation from both high-tech and more traditional industries, such as paper products, metals, food processing, lumber and wood products, although many of these industries had declining employment during the 1990s.

About one of every four jobs in Clark County is in retail or wholesale trade. This sector is a bit smaller than the state average since residents can easily drive over the

Columbia River to Portland to avoid the Washington sales tax on purchases. The largest component of this sector is eating and drinking establishments, with 40 percent of all jobs, followed by grocery and department stores.

Services, the county's second largest sector, also has about one in every four jobs in the county. Services was the fastest-growing sector in the county in terms of employment. Health care, business services, and social services industries dominate this sector. Most of the jobs are lower paying, as the higher paying industries in this segment tend to be concentrated in Portland.

Government employment is more than 16 percent, about the same as the state's 17 percent share. Local government is by far the largest branch of government in Clark County, with about two-thirds of all jobs in this sector, most in K-12 education. The federal and state governments have much smaller shares of employment.

Construction and mining has 9 percent of jobs in the county, nearly double the 5 percent state average. The largest industrial group is specialty trades, which includes plumbing, carpentry, painting, and electrical work. The size of this sector is due primarily to the building boom of the 1990s, especially in home construction.

One-third of Clark County's workers commute across the Columbia River to jobs in the Portland metro area.

Cowlitz County

Manufacturing traditionally has been the dominant industry sector in Cowlitz County. Although the last 15 or so years have seen serious employment declines in this sector, it remains the largest in the county. About 26 percent of jobs in the county are in manufacturing, double the size of the sector statewide. The timber industry is dominant, with more than half of the sector's jobs. Most of the metals employment disappeared in 2001, however, when Longview Aluminum laid-off its work force, and Prudential Steel closed.

Trade is the second largest economic sector, with more than 22 percent of the workforce, just under the state average. Retail trade provides the bulk of trade jobs, with the largest industry eating and drinking establishments. Most jobs in the industry are part time and have low wages.

The services sector experienced fast growth in Cowlitz County in recent years; it has about 20 percent of the county's employment, about two-thirds of the state average. Employment growth since 1970 has done much to offset employment declines in other industries, primarily manufacturing. Health care is the largest industry in the services sector, with 39 percent of jobs; business services, social services, and engineering and management services also provided significant employment in the county.

About one in six jobs in Cowlitz County are in government, primarily local government; K-12 education has 62 percent of local government employment in the county.

Skamania County

Geography and politics have greatly influenced the Skamania County economy. Ninety percent of the county is forest. For decades, the county economy rested on timber. In the late 1980s, one-third of the jobs in the county were in manufacturing, primarily forest products industries; by 1996, the number had fallen below 15 percent. With the creation of the Columbia Gorge National Scenic Area and opening of the Skamania Lodge, trade and service employment doubled, helped by the county's growing tourism industry.

Government is the largest employer in Skamania County, accounting for 47 percent of jobs. Throughout the state, government makes up 19 percent of employment. About two-thirds of government jobs belong to local government, including K-12 public education. The federal government has a 30 percent share of employment, most with the U.S. Forest Service, which administers the Gifford Pinchot National Forest and the Columbia Gorge National Scenic Area.

The services sector has one quarter of all jobs in the county, about the same as the state as a whole. This sector developed in the mid 1990s with the opening of the Skamania Lodge, a Columbia Gorge destination resort. The resort is the largest private-sector employer in the county, and its payroll nearly tripled the size of the services sector.

Skamania County's manufacturing sector is about the same size as the state as a whole, making up about 14 percent of employment. The bulk of manufacturing is in the lumber and wood products industry; in 1996, this industry had 68 percent of manufacturing jobs, most in logging or at sawmills.

The trade sector has 10 percent of the county's jobs. A flourishing trade sector has not materialized because Skamania County is sparsely populated and major commercial centers are located nearby in Vancouver and Portland. The statewide share for trade is 25 percent. In Skamania County, the largest employers in the trade sector are grocery stores and restaurants, accounting for about 85 percent jobs. Sector wages are relatively low.

Because of fewer job opportunities, almost half of the Skamania labor force commutes to work outside the county.

Wahkiakum County

Government is the largest employer in Wahkiakum County, with one of every three jobs. Wahkiakum is similar to many smaller counties in that a majority of government work is at the local level. K-12 education constitutes a significant percentage of local government employment, about 36 percent.

As in Cowlitz County, manufacturing traditionally has been a dominant factor in the local economy. Although there has been a serious decline in employment, manufacturing remains the second largest sector in Wahkiakum County, with about 32 percent of the jobs. Close to 90 percent of employment is in lumber and wood products, and virtually all of that is in logging.

The services sector makes up about 13 percent of Wahkiakum County's economy. It is much smaller than the state's 30 percent share. Health services is the largest industry in the sector.

Commuting Patterns[5, 6]

Recent population growth has resulted in a significant increase in workers, automobiles and trucks on the roads. A higher percentage of workers driving alone can cause traffic congestion and accidents. More traffic places a larger load on the region's transportation infrastructure. The impact of an emergency can disrupt automobile traffic, shut down transit systems, and make evacuations more difficult.

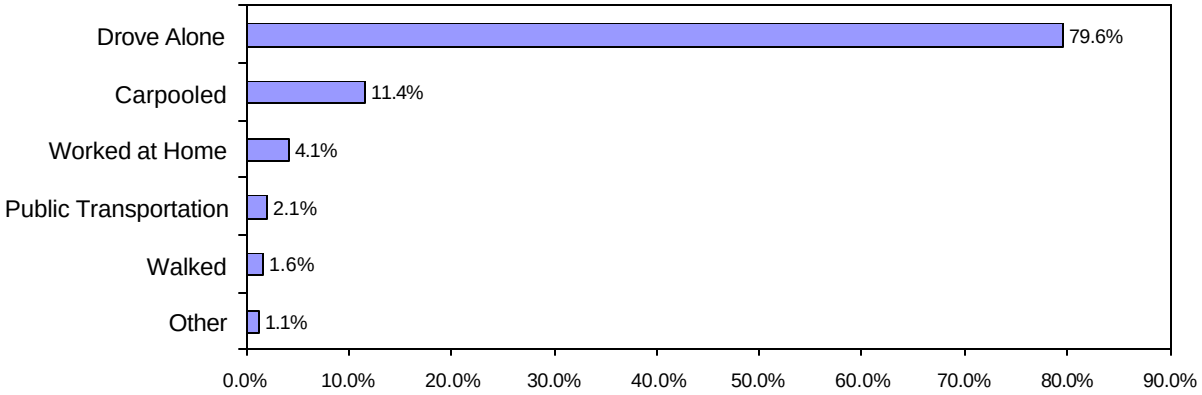
A significant percentage of the region's workforce commutes to other counties for employment.

Because of fewer job opportunities, almost half of the Skamania labor force commutes to work outside the county. About 45 percent of commuters drive to jobs in Clark County, and another 45 percent drive across the Columbia River to jobs in Hood River, OR, or the Portland, OR metro area.

About one-third of Clark County workers commute to jobs outside the county. Most, more than 50,900, commute to the Portland metro area each day, while about 2,500 commute to Cowlitz County. About one in nine residents of Cowlitz County commute to work, primarily to Clark County and to Portland.

Figure 1, below, shows transportation used by commuters. Primary mode of transportation is driving alone. Public transit systems in two counties carried nearly 6.3 million riders in 2001, with C-TRAN in Clark County carrying 5.9 million riders on a variety of routes, including commuter and express buses between Clark County and the Portland metropolitan area, and the Cowlitz Transit Authority another 275,800 passengers within the county. Vanpools, primarily in the C-TRAN service area, carried more than 51,200 passengers in 2001

Figure 1. Commuting Patterns



Source: U.S. Census Bureau, Profile of Selected Economic Characteristics: 2000

Hazards and State Facilities Potentially At-Risk

The regional hazard profiles were developed using information from the individual hazard profiles that are part of the Risk Assessment, as well as from reference documents listed at the end of each hazard profile.

Unless otherwise noted below, at-risk facilities were identified by state agencies participating in this plan using methodology identified in the Risk Assessment Introduction, Tab 7.

Figures for the number of staff/visitors/residents for each at risk facility were calculated on the highest use for that facility; for many structures, this inflates the number of individuals in the buildings at any one time.

The Washington Department of Transportation identified essential transportation corridors, or highways and ferry routes of greatest importance to transportation of people and goods and services.

Region 4

Hazard: Avalanche

Characteristics	Most Vulnerable Areas	Event History	Probability
Avalanches occur when a layer of snow loses its grip on a slope and slides downhill. They occur frequently in the backcountry of the Cascade Range, often without any impact to people, transportation routes or development. Most avalanches that cause injuries or deaths occur outside developed recreation areas; the primary cause of these avalanches is the weight of the victim or someone in the victim's party on the slab of snow. Very few avalanche fatalities occur in on open runs in ski areas or on highways. Avalanche season begins in November and runs through early summer for all mountain areas of the state; in high alpine areas of the Cascade Range, the season is year-round.	1. Recreation areas in the Cascade Mountains. 2. Slopes of Mount St. Helens. 3. State Route 504 to Johnston Ridge, Skamania County.	An avalanche in 1975 on Mount St. Helens killed five people.	On average, avalanches kill one to two people every year in Washington State. At least five avalanche deaths have occurred in Region 4 since 1910.

Region 4

Hazard: Avalanche **At Risk Population:** Unknown of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: One state highway, no state buildings.	0	0	0
Function of at-risk facilities: One state highway is potentially at risk to avalanche: 1. State Route 504 to Johnston Ridge in Skamania County.			
Total at-risk critical facilities: No state buildings.	0	0	0

Region 4

Hazard: Drought

Characteristics	Principal Sources	Event History	Probability
Drought is a prolonged period of dryness severe enough to reduce soil moisture, water and snow levels below the minimum necessary for sustaining plant, animal, and economic systems. Drought can have a widespread impact on the environment and the economy, depending upon its severity, although it typically does not result in loss of life or damage to property, as do other natural disasters. In Region 4, drought conditions can reduce water available for crops and domestic and industrial use, as well as affect the availability and cost of power for local industries.	Drought is the result of many causes, often synergistic in nature; these include global weather patterns that produce persistent, upper-level high-pressure systems along the West Coast with warm, dry air resulting in less precipitation.	During 1895-1995, much of the state was in severe or extreme drought at least 5 percent of the time. Region 4 was in severe or extreme drought from 5 to 10 percent of the time during this period. 1977 Drought – This region experienced severe or extreme drought conditions between 10 to 20 percent of the time during this event. 2001 Drought – At the height of the event in March 2001, much of this region experienced moderate to extreme drought conditions.	In temperate regions of the world, including Washington state, current long-range forecasts of drought have limited reliability. Meteorologists do not believe that reliable forecasts are attainable any more than a season in advance. Drought conditions of at least moderate severity occur every few years in Washington. On a long-term basis, Region 4 experiences drought conditions of at least moderate severity from 5 to 10 percent of the time.

Hazard: Drought **At Risk Population:** Unknown of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: No state buildings.	0	0	0
Total at-risk critical facilities: No state buildings.			

Region 4

Hazard: Earthquake

Characteristics	Principal Sources	Event History	Probability
In general, Seismic Hazard Areas in Region 4 are found in: Floodplains and the adjacent bluffs in the Columbia, Cowlitz, Elochoman, Grays, Lewis and Wind River valleys because of their high or medium susceptibility to liquefaction and other ground failures. Bluffs along shorelines of large lakes because of their susceptibility to landslides and other ground failures.	1. Interplate earthquake in the offshore Cascadia Subduction Zone. Evidence of quakes with magnitude greater than 8 have been found along the Washington coast; the most recent event was about 1700. 2. Shallow, crustal earthquake in the North America (continental) plate. Information is very limited on surface faults in Region 4; initial research on the Portland Hills fault in Oregon indicates it may be capable of generating a M6.5 or greater event that could affect Region 4. 3. Deep, Benioff zone earthquake within the Juan de Fuca plate. This is the source for the 1949, 1965, and 2001earthquakes.	Since 1970, earthquakes of magnitude 4.0 or greater whose epicenter was in Region 4 occurred in 1980 (M5.7 – the event that led to the landslide triggering the eruption of Mount St. Helens, plus M4.1, M4.0, M4.2 events), 1981 (M4.5), and 1982 (M4.4). The above does not include the 291 earthquakes M4.0 or greater that occurred from March 24, 1980 through May 18, 1980 before the eruption of Mount St. Helens, nor the 23 events of M4.0 or greater that occurred in the six days following the eruption. Region 4 received a Presidential Disaster Declaration for the M6.8 Nisqually earthquake in 2001. Also, the region experienced moderate damage in the Longview-Kelso area during the M7.1 Olympia earthquake in 1949.	Approximate recurrence rate for a magnitude 9 earthquake in the Cascadia Subduction Zone is once every 350 to 500 years. Approximate recurrence rate for earthquakes similar to the 2001 magnitude 6.8 Nisqually events is once every 35 years. Approximate recurrence rate for earthquakes similar to the 1949 magnitude 7.1 Olympia event is once every 110 years. Geologists continue to investigate the Portland Hills fault and do not yet have sufficient information to determine previous seismicity, estimated recurrence rate, nor the area of Region 4 that may be vulnerable.

Region 4

Hazard: Earthquake **At Risk Population:** Unknown of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 82 (42 owned, 40 leased)	6,670	$84,273,599	$53,053,097

Function of at-risk buildings: Included are:

- Campuses for the State School for the Deaf and State School for the Blind.
- Regional headquarters, local detachments, highway weigh scales, and communication facilities of the Washington State Patrol.
- 28 general office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to earthquake:

1. Interstate 5
2. Interstate 205
3. State Route 14

Total at-risk critical facilities: State Agencies identified – 40 (owned-leased split not available.	1,696	$17,434,154	$19,006,827

Function of at-risk critical facilities: Included are:

- Buildings on the campuses of the State Schools for the Deaf and State School for the Blind.
- Regional headquarters, local detachments, highway weigh scales, and communication facilities of the Washington State Patrol.
- About 10 general office and client service offices.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to earthquake:

2. Interstate 5
3. Interstate 205
4. State Route 14

Region 4

Hazard: Flood

Characteristics	Principal Flood Sources	Event History	Probability
Region 4 is subject to two types of flooding – flooding that occurs on the county's major river systems (see right) and flooding that is the result of urbanization, particularly in small stream basins. Because of their origins in upper elevations, these rivers are influenced by snow and rain patterns in the Cascade Mountains; flooding is most likely to occur from November through February during periods of heavy rainfall and rapid snowmelt. All six rivers travel through broad floodplains with long histories of flooding. Bank erosion is also a threat on the rivers.	1. Columbia River 2. Cowlitz River 3. Elochoman River 4. Grays River 5. Lewis River 6. Wind River	Flooding in Region 4 is a common event. Since 1956, flooding resulted in Presidential Disaster Declarations in 1964, 1972, 1975, 1977, 1986 (two disasters), 1990 (two disasters), 1995, and 1996. Since 1989, more than $10.1 million in Stafford Act disaster assistance has been provided to Region 4 for repairs to public facilities following flood events; 40 percent of the assistance went to Clark County and another 35 percent to Cowlitz County.	The region's rivers typically flood every two to five years. Since 1956, this region has experienced serious flooding resulting in major damage and a Presidential Disaster Declaration about every five years. Wahkiakum and Clark Counties have the greatest percentage of their area in the 100-year floodplain in the state, 9.1 percent and 7.5 percent, respectively.

Hazard: Flood **At Risk Population:** est. 92,330 of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 24 (2 owned, 22 leased)	1,294	$7,463,689	$12,521,789

Function of at-risk buildings: Included are:

- General office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to flood where they cross or run through floodplains:

2. Interstate 5
3. Interstate 205
4. State Route 14

Total at-risk critical facilities: State Agency identified – 12 (owned-leased split not available)	838	$358,864	$7,732,553

Function of at-risk critical facilities: : Included are:

- General office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to flood where they cross or run through floodplain:

2. Interstate 5
3. Interstate 205
4. State Route 14

Region 4

Hazard: Landslide

Characteristics	Principal Sources	Event History	Probability
Region 4 is part of two landslide provinces. Southwest Washington province – Earth flow or slump is the dominant form of landslide in the province. Both ancient and active earth flows are common, in both high, steep terrain. Debris flows are locally a problem in the western Cascades. They tend to occur where the rocks are strong and unweathered, on steep slopes and smooth surfaces overlain by thin soils. Intense rainstorms, or rain on wet snow, trigger these landslides. Cascade Range province – In the south end, peaks are lower and consist of predominantly volcanic rock; earth flows and block slides in bedrock are the most common types of landslides in this area.	1. Bluffs along shorelines of the river valleys and large lakes. 2. Cascade Mountains. 3. Aldercrest	Examples of landslides in Region 4: 1550-1700 (est.) – The Bonneville Landslide 30 miles east of Vancouver temporarily dammed the Columbia River, shoving it a mile off course and creating a 100-mile lake. 1890s – A landslide-triggered tsunami overran Puget Island in the Columbia River near Cathlamet; the wave killed one person. 1980 – An earthquake-triggered landslide depressurized Mount St. Helens' magma chamber and lead to the May 18 eruption of the volcano. Winter 1995-1996 – Numerous landslides blocked rail lines and buried a train in debris, broke a house in two, closed or partially covered SR 14 in 15 areas for 80 miles, SR 141 and closed SR 4. 1998 – The Aldercrest Landslide, second-worst landslide disaster in US history, destroyed or badly damaged 126 of the 137 homes in the east Kelso neighborhood.	Ground failures that result in landslides have a number of contributing factors that do not allow for the development of a reasonable estimate probability of future events. Factors that contribute to ground failure and landslides include: • Local topography. • Erosion on slopes. • Saturation of slopes. • Earthquakes. • Volcanic deposits and debris flows. • Excess weight on weak slopes. • Human action that disturbs slopes.

Hazard: Landslide **At Risk Population:** Unknown of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 15 (one owned, 14 leased)	1,150	$3,035,736	$11,431,736

Function of at-risk buildings: : Included are:

- General office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to landslides as they cross steep slopes:

2. Interstate 5
3. Interstate 205
4. State Route 14

Total at-risk critical facilities: State Agency identified – 7 (all leased)	730	0	$7,000,000

Function of at-risk critical facilities: Included are:

- General office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Three state highways considered emphasis corridors because of their importance to movement of people and freight are potentially at risk to landslides as they cross steep slopes:

2. Interstate 5
3. Interstate 205
4. State Route 14

Region 4

Hazard: Severe Storm

Characteristics	Principal Sources	Event History	Probability
A severe storm is an atmospheric disturbance that results in one or more of the following phenomena: strong winds and large hail, thunderstorms, tornados, rain, snow, or other mixed precipitation. Most storms move into Washington from the Pacific Ocean. Typically, major impacts from a severe storm are to transportation and loss of utilities.	1. High winds 2. Winter storm 3. Blizzard 4. Severe Thunderstorm 5. Tornado	Severe storm in Region 4 is a common event. Since 1956, severe storm events resulted in Presidential Disaster Declarations in 1962, 1972, 1977, 1986 (two disasters), 1990 (two disasters), 1993, 1995, and 1996. Since 1989, Region 4 received more than $6.7 million in Stafford Act disaster assistance for repairs to public facilities following severe storm events. Forty-eight percent of the assistance went to Cowlitz County, and 41 percent went to Clark County.	Projected recurrence rates for the severe storm events to which Region 4 is most vulnerable are as follows: • High wind events occur at least once a year throughout the region. • Winter storms occur about twice every three years throughout the region. • Blizzards occur in Clark and Skamania Counties; a recurrence rate is not available. • Severe Thunderstorms occur in Skamania County; a recurrence rate is not available. • Tornados occur about once every 15 years in Clark and Cowlitz Counties.

Region 4

Hazard: Severe Storm **At Risk Population:** 451,882 of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 41 (11 owned, 30 leased)	1,264	$34,364,642	$20,892,119

Function of at-risk buildings: Included are:

- Regional headquarters, local detachments, highway weigh scales, and communication facilities of the Washington State Patrol.
- 26 general office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

Total at-risk critical facilities: State Agency identified – 21 (12 owned, 9 leased)	742	$15,684,154	$13,779,460

Function of at-risk critical facilities: Included are:

- Regional headquarters, local detachments, highway weigh scales, and communication facilities of the Washington State Patrol.
- General office and client service offices.

Hazard: Tsunami

Characteristics	Principal Sources	Event History	Probability
A tsunami resembles a series of quickly rising tides that withdraw with currents much like those of a river. Swift currents commonly cause most of the damage. A Pacific Ocean tsunami can affect the entire Pacific basin, while a tsunami in inland waters can affect many miles of shoreline. Tsunamis typically cause the most severe damage and casualties near their source. Waves are highest there because they have not yet lost much energy. Another class of damaging water wave is a seiche. A seiche is a wave generated in a body of water from the passage of seismic waves caused by earthquakes. Sedimentary basins beneath the body of water can amplify a seismic seiche and the natural sloshing action in a body of water or focus water waves onto a section of shoreline.	Tsunamis and seiches can be generated by a number of sources: 1. Distant earthquakes along the Pacific Rim (i.e., 1964 Alaska earthquake). 2. Local earthquakes, such as those generated by local surface faults; in the Benioff zone; or in the Cascadia Subduction Zone off the coast. 3. Large landslides into bodies of water, such as Spirit Lake or Vancouver Lake 4. Submarine landslides in bodies of water.	1890s – A landslide-triggered tsunami overran Puget Island in the Columbia River near Cathlamet. The wave killed one person. 1964 – Wave height for the tsunami generated by the M9.2 Alaska earthquake was 0.1 feet in the Columbia River at Vancouver. 1980 – The May 18, 1980 eruption of Mount St. Helens caused a massive tsunami in Spirit Lake. The sliding north face of the volcano slammed into the west arm of the lake sending a tsunami surging around the lake basin. Displaced water rinsed the valley sides clean of timber and sediment, jamming logs and boulders against the landslide debris. In the east arm of Spirit Lake, the tsunami wave also washed trees off the sides of the valley into the lake.	Great earthquakes in the North Pacific or along the Pacific coast of South America that generate tsunamis that sweep through the entire Pacific basin occur at a rate of about six every 100 years. Geologists have not yet determined seismicity or recurrence intervals for earthquakes generated by the Portland Hills fault or suspected surface faults in Region 4, nor whether any of them would be capable of generating a tsunami or seiche.

Region 4

Hazard: Tsunami **At Risk Population:** Unknown of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: No state facilities.	0	0	0
Total at-risk critical facilities: No state facilities	0	0	0

Region 4

Hazard: Volcano

Characteristics	Volcanoes in Region	Event History	Probability
Region 4 is home to Mount St. Helens, the most frequently active volcano in the Cascades. The region also has been impacted in the past by Mount Hood in Oregon Volcanoes can lie dormant for centuries between eruptions. When Cascades volcanoes do erupt, high-speed avalanches of hot ash and rock called pyroclastic flows, lava flows, and landslides can devastate areas 10 or more miles away, while huge mudflows of volcanic ash and debris called lahars can inundate valleys more than 50 miles downstream. Falling ash from explosive eruptions can disrupt human activities hundreds of miles downwind, and drifting clouds of fine ash can cause severe damage to the engines of jet aircraft hundreds or thousands of miles away. Mount St. Helens – Lahars are the greatest threat to communities immediately below the volcano, with tephra fall affecting communities east of the volcano. Mount Hood – Previous lahars flowing down the Sandy River valley have pushed the Columbia River against the shore in the Camas-Washougal area.	1. Mount St. Helens 2. Mount Hood, Oregon (across the Columbia River from Region 4)	Mount St. Helens – In the last 515 years, the volcano produced four major explosive eruptions and dozens of lesser eruptions. The 1480 eruption was five times larger than the May 18, 1980 eruption The 1980, eruption was the most destructive in the history of the United States. It caused loss of lives and widespread destruction of valuable property, primarily by the debris avalanche, the lateral blast, and lahars. Mount Hood – Growth and collapse of lava domes dominated eruptive activity at Mount Hood during the past 30,000 years. The last two episodes occurred 1,500 and 200 years ago. Repeated collapse of lava domes near the site of Crater Rock, Mount Hood's youngest lava dome, generated pyroclastic flows and lahars and built much of the broad smooth fan on the south and southwest flank of the volcano. After the last eruptive period, sediment choked the Sandy River enlarged its delta, and pushed the Columbia River against the Washington shore in the Camas-Washougal area.	Mount St. Helens – Scientists developed hazard zones for various-sized lahars, but have not projected recurrence intervals because of changes in the volcano from the 1980 eruption. If a large lahar occurs in the next few decades, it would produce a flow only in the North Fork Toutle River and downstream, and likely would be small. The volcano repeatedly has produced voluminous tephra. Lethal effects are likely only in the immediate vicinity; damaging impacts could cover as much as 40,000 square miles. Due to prevailing westerly winds, the possibility of an annual ash fall of one centimeter in Region 4 from any major Cascade volcano ranges from 1 in 100 to 1 in 10,000, depending on location. Mount Hood – Future lahars and eruption-induced sedimentation are likely to build Sandy River delta farther out into the Columbia River, leading to progressive bank erosion and inundation in the Camas-Washougal area of Region 4. The 30-year probability that lahars will inundate areas of the Sandy River valley is from 1 in 15 to 1 in 30.

Hazard: Volcano **At Risk Population:** 22,464 of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 29 (17 owned, 12 leased)	3,629	$29,566,720	$6,603,986

Function of at-risk buildings: Included in the state facilities potentially at risk to lahar or ash fall from a volcanic eruption are the following:

- Campus of the State School for the Deaf.
- 16 general office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.

One state highway considered an emphasis corridors because of its importance to movement of people and freight is potentially at risk to volcanic eruptions that produce lahars in river valleys crossed by the highway:

1. Interstate 5 through Cowlitz County.

Total at-risk critical facilities: State Agency identified – 15 (12 owned, three leased)	336	$1,958,864	$895,553

Function of at-risk critical facilities: Included in the state facilities potentially at risk to lahar or ash fall from a volcanic eruption are the following:

- Buildings on the campus of the State School for the Deaf.
- General office and client service offices.

One state highway considered an emphasis corridors because of its importance to movement of people and freight is potentially at risk to volcanic eruptions that produce lahars in river valleys crossed by the highway:

1. Interstate 5 through Cowlitz County.

Region 4

Hazard: Wildland Fire

Characteristics	Principal Sources	Event History	Probability
Wildland fires are fires caused by nature or humans that result in the uncontrolled destruction of forests, brush, field crops, grasslands, and real and personal property in non-urban areas. A fire needs three elements in the right combination to start and grow – a heat source, fuel, and oxygen. How a fire behaves primarily depends on the characteristics of available fuel, weather conditions, and terrain. The wildland fire season in Washington usually begins in early July and typically culminates in late September with a moisture event. Drought, snow pack, and local weather conditions can expand the length of the fire season.	1. Humans – people start most wildland fires; from 1992 to 2001, people, on average, caused more than 500 wildland fires each year on state-protected lands. Human-caused fires burn an average of 4,404 state-protected acres each year. 2. Lightning – lightning on average started 135 wildland fires annually on state-protected lands during 1992-2001. Lightning-caused fires burn more state-protected acreage than any other cause, an average of 10,866 acres annually.	Nearly all of Region 4 is part of the Southwest fire protection region of the Washington Department of Natural Resources (the north part of Skamania County belongs to another fire protection region). During 1992-2001, the Southwest Region averaged 87 fires a year that burned an average of 77 acres of state-protected lands. Two of the state's most significant wildland fires occurred in this region: 1902 – Yacolt fire burned 238,000 acres in Skamania and Clark Counties; the fire resulted in 38 deaths. 1928 – Dole Valley fire burned 227,500 acres in Skamania and Clark Counties.	Nearly all of the state's significant wildland fires have occurred in Eastern Washington. Western Washington is less prone to catastrophic wildland fires than Eastern Washington – the east has both lighter fuels that burn more easily and more snags and hazard trees, and weather conditions more favorable to fire (thunderstorms with dry lightning are more prevalent in the east). Also, the west has a shorter fire season than the eastern half of the state – the west receives more rainfall, has wetter and cooler spring seasons, and is more urbanized.

Hazard: Wildland Fire **At Risk Population:** est. 79,766 of 451,882 **PRELIMINARY ASSESSMENT**

State Agency Structures At Risk Number and Function of Buildings	No. of Affected Staff / Visitors / Residents	Approx. Value of Owned Structures	Approx. Value of Contents All Buildings
Total at-risk buildings: State Agency identified – 36 (four owned, 32 leased)	2,109	$23,552,378	$16,938,616
Function of at-risk buildings: Included are general office and client service offices that include those serving individuals and families on public assistance, providing employment and training services, driver licensing, and liquor sales.			
Total at-risk critical facilities: State Agency identified – 17 (one owned, 16 leased)	1,077	$150,000	$8,905,905
Function of at-risk critical facilities: Included are general office and client service offices.			

[1] *Clark County Profile*, Washington Department of Employment Security, Labor Market and Economic Analysis Branch, June 2001.

[2] *Skamania County Profile*, Washington Department of Employment Security, Labor Market and Economic Analysis Branch, April 1998.

[3] *Cowlitz & Wahkiakum County Profile*, Washington Department of Employment Security, Labor Market and Economic Analysis Branch, September 2002.

[4] *Cowlitz & Wahkiakum County Profile*, Washington Department of Employment Security, Labor Market and Economic Analysis Branch, September 2002.

[5] *Profile of Selected Economic Characteristics: Census 2000*, U.S. Census Bureau.

[6] *Summary of Public Transportation 2001*, Washington State Department of Transportation, November 2002 (Revised April 2003).